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42
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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/857,552 | 06/05/2001 | Gary Robert Burg | FKL 2 089 (1) | 5024 |
| 7590 03/12/2004 | | | | |
| Frederick K Lacher Robert W Brown The Goodyear Tire & Rubber Company Pat Dept D 823 1144 East Market Street Akron, OH 44316 | | EXAMINER FONTAINE, MONICA A | | |
| | | ART UNIT 1732 PAPER NUMBER | | |
| DATE MAILED: 03/12/2004 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/857,552

Applicant(s)

BURG ET AL.

Examiner

Monica A Fontaine

Art Unit

1732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

This office action is in response to the Amendment filed 15 January 2004.

All rejections in the paper mailed 15 September 2003 have been maintained, except for that of claim 2, which was amended. Although no new prior art has been applied, the rejection of the amended claim 2 is fully written in this office action for clarity of the record.

Claim Objections

Claim 2 is objected to because of the following informalities: The phrase “, said extruder nose” in line 3 (as amended) appears to be superfluous. Appropriate correction is required.

Claim Rejections - 35 USC § 112

Claim 12 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for specific relationships between screw diameters at different sections, does not reasonably provide enablement for specific relationships between barrel diameters at different sections. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to carry out the invention commensurate in scope with these claims.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 1732

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 3-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Rog (U.S. Patent 5,599,096), as stated in the paper mailed 15 September 2003.

Claims 2 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Rog (U.S. Patent 5,599,096).

Regarding Claim 2, Rog shows the apparatus as claimed as discussed in the rejection of Claim 1 (see paper mailed 15 September 2003), including that it is known to have an extruder wherein said extruder has an adjacent flow channel block with a converging tapered wall (Column 3, lines 29-40), said extruder further characterized by said screw nose having a downstream portion of decreasing diameter in said direction of flow providing a generally conical surface generally parallel to a converging tapered wall of an adjacent flow channel block for maintaining working engagement with the extrudate and maintaining the pressure on the extrudate at the discharge end (Figure 1, elements 36 and 44).

Regarding Claim 12, Rog shows the apparatus as claimed as discussed in the rejection of Claim 1 (see paper mailed 15 September 2003), including an extruder wherein an upstream portion of the barrel of said extruder has a diameter D1 and said downstream portion of said barrel of said extruder has a diameter D2, wherein D2 is less than or equal to D1 to maintain pressure on the extrudate (Figure 1; Column 3, lines 35-40).

Response to Arguments

Applicant's arguments filed 15 January 2003 have been fully considered but they are not persuasive. Regarding Claims 1-11:

Applicants contend that Rog does not teach the instant invention because he does not show an extruder barrel whose diameter remains constant and then converges toward the discharge end of the barrel. This is not persuasive because a barrel with a constant diameter is not claimed. It is maintained by the examiner that Rog's barrel is cylindrical. Furthermore, a barrel having constant diameter is not described in the specification (It is noted that the flow head 14 is described as having generally constant sectional area, but this does not apply to the entire extrusion barrel.).

Applicants contend that Rog does not teach the instant invention because he does not teach using visco-elastomeric materials which have unique properties such as rubber in his apparatus. This is not persuasive because the limitation of a visco-elastomeric material is not contained in the independent claim. Furthermore, Rog's synthetic resinous material could be a visco-elastomeric material. Finally, the unique properties of visco-elastomeric materials are not claimed.

Applicants contend that Rog does not teach the instant invention because he does not teach a generally conical surface for decreasing a transition space between said screw nose and said cylindrical barrel. This is not persuasive because Rog clearly shows a tapering of the flow channel between the screw nose and the cylindrical barrel (Column 3, lines 29-40).

Applicants contend that Rog does not teach the instant invention because he does not teach a flow channel of constant cross section to maintain pressure on the molding material.

Art Unit: 1732

This is not persuasive because Rog does teach a flow channel of general constant cross section to maintain pressure on the molding material (Figure 1, section B), which is what is currently claimed. The amount of variability which applicants grant the term "generally constant cross sectional area" is not clear, nor is it defined in the specification.

Applicants contend that Counciller does not teach what is claimed in claims 9 and 10, but he does not give any specific reasons. Applicant points out various details of Counciller's disclosure but does not relate them or declare the differences between Counciller and the instant claims.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Art Unit: 1732

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monica A Fontaine whose telephone number is 571-272-1198. The examiner can normally be reached on Monday-Friday 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Colaianni can be reached on 571-272-1196. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Maf

February 28, 2004



MICHAEL COLAIANNI
PRIMARY EXAMINER